Abstract

Method and device for the clocked output of asynchronously
received digital signals

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With regard to the asynchronous transmission of digital
values between a transmitter, from which the digital values
are transmitted at a first frequency and a receiver (A, B),
in which the received digital values are further processed
10 and in particular outputted at a second frequency, it is
never possible to harmonize the first frequency with the
second frequency. In consequence as a result of frequency
differences never to be harmonized an overflow or under-run
of the transmitted digital values occurs. In order to
15 prevent this and to synchronize the frequency on the side of
the receiver (A, B) for processing received digital values
to the frequency on the side of the transmitter (A, B) at
which the digital values are transmitted, the amount of the
digital values received in relation to the time by the
20 receiver (A, B) is determined and dependent on this, an
output clock is set so that the digital values are outputted
or further processed at the frequency, with which on average
they have been received by the receiver (A, B). The method
is particularly suitable, if data is transmitted bi-
25 directionally between two subscribers (A, B) and digital
values received at the same frequency by both subscribers
(A, B) are outputted in analog form and analog input signals
are digitized and each transmitted to the other subscriber
(A, B). In this case the separate clock for outputting
30 received digital values can be synchronized on the basis of
the amount of digital values by either of the two
subscribers (A, B) or even by both subscribers (A, B).
Advantageously the two subscribers (A, B) are IP telephones
for providing a telephone service via a communication

network. The amount of incoming digital values can be evaluated by a synchronizing logic (SL), which is arranged within a clock generation unit (CGU) together with an oscillator (OSC), controlled by the synchronizing logic (SL)

5 in such a way that an operating clock (fA) produced by it for a subscriber (A) ensures further processing of the received digital values at the same frequency, with which the digital values are received over the average time.

10 (Fig. 3)